CLAIMS

I claim:

1. A communication network having a bus and at least one device, the communication network comprising:

a switch operably connected to the bus and the at least one device, the switch being responsive to the bus to generate a terminate enable;

a connector operably connecting the a. least one device to the bus; and,

a terminal resistor operably connected to the switch, wherein the switch inserts the terminal resistor onto the bus in response to the terminate enable.

2. The communication network of claim 1 wherein the network is CAN.

3. The communication network of claim 1 wherein the network is CANopen

4. The communication network of claim 1 wherein the bus is a serial type bus.

5. The communication network of claim 1 wherein the bus is a loop.

6. The communication network of claim 1 wherein the switch is electronic.

7. The communication network of claim 1 wherein the bus is Ethernet 10Base-2.

8. The communication network of claim 1 wherein the bus is Ethernet 10Base-5.

9. The communication network of claim 1 wherein the bus supports CAN communication.

10. The communication network of claim 1 wherein the bus is ModbusPlus.

11. The communication network of claim 1 wherein the bus is Arcnet.

12. The communication network of claim 1 wherein the bus is RS485.

13. The communication network of claim 1 wherein the value of the terminal resistor is equal to the value of the characteristic impedance of the network.

14. A method of minimizing communication signal disruptions in a communication network resulting from the removal of a portion of the communication network, the method comprising the steps of:

providing a switch operably connected to a communication bus;

sensing a voltage signal on the communication bus;

generating a terminate enable responsive to the voltage signal; and,

inserting with the switch a terminal resistor onto the communication bus in response to the terminate enable.

15. The method of claim 14 wherein the network is CAN.

16. The method of claim 14 wherein the network is CANopen.

17. The method of claim 14 wherein the bus is Ethernet 10Base-2.

18. The method of claim 14 wherein the bus is Ethernet 10Base-5.

19. The method of claim 14 wherein the bus supports CAN communication.

20. The method of claim 14 wherein the bus is Arcnet.

21. The method of claim 14 wherein the bus is ModbusPlus.

22. The method of claim 14 wherein the bus is RS485.

23. The method of claim 14, further comprising:

selecting a value for the terminal resistor equivalent to properly match the characteristic impedance of the network.

24. The method of claim 23 wherein the value of the terminal resistor selected is 120 ohms.

25. A system of minimizing signal disruptions in a communication network, the system comprising:

an ethernet communication bus;

a connector operably connecting a first device to the communication bus;

an electronic switch operably connected to the communication bus and the first device, the switch being responsive to the bus to generate a terminate enable; and,

a terminal resistor operably connected to the switch, wherein the switch inserts the terminal resistor onto the communication bus in response to the terminate enable.

26. The system of claim 25 wherein the network is CAN.

27. The system of claim 25 wherein the network is CANopen.

28. The system of claim 25 wherein the ethernet bus is Ethernet 10Base-2.

29. The system of claim 25 wherein the ethernet bus is Ethernet 10Base-5.

30. The system of claim 25 wherein the value of the terminal resistor is 120 ohms.

31. The system of claim 25 wherein the bus supports CAN communication.

32. The system of claim 25 wherein the bus is ModbusPlus.